marantz®

Model PM-15S2 User Guide

Integrated Amplifier

CAUTION

RISK OF ELECTRIC SHOCK DO NOT OPEN

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK) NO USER-SERVICEABLE PARTS INSIDE REFER SERVICING TO QUALIFIED SERVICE PERSONNEL

The lightning flash with arrowhead symbol within an equilateral triangle is intended to alert the user to the presence of uninsulated “dangerous voltage” within the product’s enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.

WARNING

TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

CAUTION: TO PREVENT ELECTRIC SHOCK, MATCH WIDE BLADE OF PLUG TO WIDE SLOT, FULLY INSERT.

ATTENTION: POUR EVITER LES CHOCS ELECTRIQUES, INTRODUIRE LA LAME LA PLUS LARGE DE LA FICHE DANS LA BORNE CORRESPONDANTE DE LA PRISE ET POUSSER JUSQU’AU FOND.

NOTE:

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

NOTE:

Changes or modifications may cause this unit to fail to comply with Part 15 of the FCC Rules and may void the user's authority to operate the equipment.

This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numerique de la Classe B est conforme a la norme NMB-003 du Canada.

IMPORTANT SAFETY INSTRUCTIONS

READ BEFORE OPERATING EQUIPMENT

This product was designed and manufactured to meet strict quality and safety standards.
There are, however, some installation and operation precautions which you should be particularly aware of.

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacture's instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11. Only use attachments/accessories specified by the manufacturer.
12. Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.

13. Unplug this apparatus during lightning storms or when unused for long periods of time.
14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

Additional Safety Information!

- This product should not be placed in a built-in installation such as a bookcase or rack unless proper ventilation is provided or the manufacturer's instructions have been adhered to.
- Apparatus shall not be exposed to dripping or splashing and that no objects filled with liquids, such as vases, shall be placed on the apparatus.
- When the switch is in the OFF position, the apparatus isn't completely switched-off from the MAINS.
- The equipment shall be installed near the power supply so that the power supply is easily accessible.
- Do not expose the unit to excessive heat such as direct sunlight, fire or the like.

ENGLISH

WARRANTY
For warranty information, contact your local Marantz distributor.

RETAIN YOUR PURCHASE RECEIPT
Your purchase receipt is your permanent record of a valuable purchase. It should be kept in a safe place to be referred to as necessary for insurance purposes or when corresponding with Marantz.

IMPORTANT
When seeking warranty service, it is the responsibility of the consumer to establish proof and date of purchase. Your purchase receipt or invoice is adequate for such proof.

FOR U.K. ONLY
This undertaking is in addition to a consumer's statutory rights and does not affect those rights in any way.

FRANÇAIS

GARANTIE
Pour des informations sur la garantie, contacter le distributeur local Marantz.

CONSERVER L'ATTESTATION D'ACHAT
L'attestation d'achat est la preuve permanente d'un achat de valeur. La conserver en lieu sur pour s'y reporter aux fins d'obtention d'une couverture d'assurance ou dans le cadre de correspondances avec Marantz.

IMPORTANT
Pour l'obtention d'un service couvert par la garantie, il incombe au client d'établir la preuve de l'achat et d'en corroborer la date. Le reçu ou la facture constituent des preuves suffisantes.

DEUTSCH

GARANTIE
Bei Garantiefragen wenden Sie sich bitte an Ihren Marantz-Händler.

HEBEN SIE IHRE QUITTING GUT AUF
Die Quittung dient Ihnen als bleibende Unterlage für Ihren wertvollen Einkauf Das Aufbewahren der Quittung ist wichtig, da die darin enthaltenen Angaben für Versicherungswecke oder bei Korrespondenz mit Marantz angeführt werden müssen.

WICHTIG!
Bei Garantiefragen muß der Kunde eine Kaufunterlage mit Kaufdatum vorlegen. Ihren Quittung oder Rechnung ist als Unterlage ausreichend.

NEDERLANDS

GARANTIE
Voor inlichtingen omtrent garantie dient u zich tot uw plaatselijke Marantz.

UW KWITANTIE, KASSABON E.D. BEWAREN
Uw kwitantie, kassabon e.d. vormen uw bewijs van aankoop van een waardevol artikel en dienen op een veilige plaats bewaard te worden voor evt, verwijzing bijv, in verbend met verzekering of bij correspondentie met Marantz.

BELANGRIJK
Bij een evt, beroep op de garantie is het de verantwoordelijkheid van de consument een gedateerd bewijs van aankoop te tonen. Uw kassabon of factuurzijn voldoende bewijs.

ITALIANO

GARANZIA
L'apparecchio è coperto da una garanzia di buon funzionamento della durata di un anno, o del periodo previsto dalla legge, a partire dalla data di acquisto comprovata da un documento attestante il nominativo del Rivenditore e la data di vendita. La garanzia sarà prestata con la sostituzione o la riparazione gratuita delle parti difettose.
Non sono coperti da garanzia difetti derivanti da uso improprio, errata installazione, manutenzione effettuata da personale non autorizzato o, comunque, da circostanze che non possano riferirsi a difetti di funzionamento dell'apparecchio. Sono inoltre esclusi dalla garanzia gli interventi inerenti l'installazione e l'allacciamento agli impianti di alimentazione.
Gli apparecchi verranno riparati presso i nostri Centri di Assistenza Autorizzati. Le spese ed i rischi di trasporto sono a carico del cliente.
La casa costruttrice declina ogni responsabilità per danni diretti o indiretti provocati dalla inosservanza delle prescrizioni di installazione, uso e manutenzione dettagliate nel presente manuale o per guasti dovuti ad uso continuato a fini professionali.

CE MARKING

CE **English**

The PM-15S2 is in conformity with the EMC directive and low-voltage directive.

CE **Français**

Le PM-15S2 est conforme à la directive EMC et à la directive sur les basses tensions.

CE **Deutsch**

Das Modell PM-15S2 entspricht den EMC-Richtlinien und den Richtlinien für Niederspannungsgeräte.

CE **Nederlands**

De PM-15S2 voldoet aan de EMC eisen en de vereisten voor laag-voltage.

CE **Italiano**

Il PM-15S2 è conforme alle direttive CEE ed a quelle per i bassi voltaggi.

English

WARNINGS

- Do not expose the equipment to rain, moisture, dripping or splashing.
- Do not remove the cover from the equipment.
- Do not insert anything into the equipment through the ventilation holes.
- Do not handle the mains cord with wet hands.
- Do not cover the ventilation with any items such as tablecloths, newspapers, curtains, etc.
- No naked flame sources, such as lighted candles, should be placed on the equipment.
- No objects filled with liquids, such as vases, shall be placed on the equipment.
- When the switch is in the OFF position, the equipment is not completely switched off from MAINS.
- The equipment shall be installed near the power supply so that the power supply is easily accessible.
- Do not expose the unit to excessive heat such as direct sunlight, fire or the like.

Français

AVERTISSEMENTS

- Ne pas exposer l'appareil à la pluie, à l'humidité, à l'égouttement ou aux éclaboussures.
- Ne pas essayer de retirer le boîtier de l'appareil.
- Ne rien insérer dans l'appareil par les orifices de ventilation.
- Ne pas manipuler le cordon d'alimentation avec les mains mouillées.
- Ne pas recouvrir les ouïes de ventilation avec un objet quelconque comme une nappe, un journal, un rideau, etc.
- Ne placer aucune source de flamme nue, comme une bougie allumée, sur l'appareil.
- Aucun objet rempli de liquide, un vase par exemple, ne doit être placé sur l'appareil.
- Lorsque l'interrupteur est sur la position OFF, l'appareil n'est pas complètement déconnecté du SECTEUR (MAINS).
- L'appareil sera installé près de la source d'alimentation, de sorte que cette dernière soit facilement accessible.
- Ne pas exposer l'appareil à une chaleur excessive, comme celle des rayons directs du soleil, d'un feu, etc.

Deutsch

WARNHINWEISE

- Das Gerät nicht Regen, Feuchtigkeit, Tropf- oder Spritzwasser aussetzen.
- Die Abdeckung nicht vom Gerät abnehmen.
- Keine Gegenstände durch die Belüftungsschlitze stecken.
- Das Netzkabel nicht mit feuchten oder nassen Händen anfassen.
- Decken Sie die Lüftungsöffnungen nicht mit einem Tischtuch, einer Zeitung, einem Vorhang usw. ab.
- Es dürfen keine Gegenstände mit offener Flamme, wie etwa brennende Kerzen, auf dem Gerät aufgestellt werden.
- Auf das Gerät dürfen keine mit Flüssigkeiten gefüllte Behälter, wie etwa eine Vase, gestellt werden.
- Wenn der Schalter ausgeschaltet ist (OFF-Position), ist das Gerät nicht vollständig vom Stromnetz (MAINS) abgetrennt.
- Das Gerät sollte in der Nähe einer Netzsteckdose aufgestellt werden, damit es leicht an das Stromnetz angeschlossen werden kann.
- Setzen Sie das Gerät keiner übermäßigen Wärme aus, z.B. durch Aufstellung in direkter Sonneneinstrahlung, in der Nähe eines offenen Feuers usw.

Nederlands

WAARSCHUWINGEN

- Stel het apparaat niet bloot aan regen, vocht, druppels of spetters.
- Verwijder de afdekplaat van het apparaat niet.
- Duw niets door de ventilatieopeningen in het apparaat.
- Raak het netsnoer niet met natte handen aan.
- Bedek de ventilatieopeningen niet met enige voorwerpen, zoals tafelkleden, kranten, gordijnen, enz.
- Plaats geen brandende voorwerpen, zoals kaarsen, op het apparaat.
- Plaats geen voorwerpen met een vloeistof erin, zoals een bloemenvaas, op het apparaat.
- Als de schakelaar op OFF staat, is het apparaat niet volledig losgekoppeld van de netspanning (MAINS).
- De apparatuur wordt in de buurt van het stopcontact geïnstalleerd, zodat dit altijd gemakkelijk toegankelijk is.
- Stel het apparaat niet bloot aan grote warmte, zoals direct zonlicht, vuur en dergelijke.

Italiano

AVVERTENZE

- Non esporre l'apparecchio alla pioggia, all'umidità, al gocciolamento o agli spruzzi.
- Non rimuovere il coperchio dell'apparecchio.
- Non introdurre oggetti all'interno dell'apparecchio attraverso i fori di ventilazione.
- Non toccare il cavo di alimentazione con le mani bagnate.
- Non coprire le fessure di ventilazione con tovaglie, giornali, tende od oggetti analoghi.
- Non posare sull'apparecchio sorgenti di fiamme scoperte quali candele accese.
- Non mettere sull'apparecchiatura alcun contenitore di liquido, come ad esempio dei vasi.
- Quando l'interruttore è nella posizione OFF, l'apparecchiatura non è completamente scollegata da MAINS.
- L'apparecchio va installato in prossimità della fonte di alimentazione, in modo che quest'ultima sia facilmente accessibile.
- Non esporre l'unità ad eccessivo calore come la luce diretta del sole, il fuoco o simili.

ENGLISH

A NOTE ABOUT RECYCLING

This product's packaging materials are recyclable and can be reused. This product and the accessories packed together are the applicable product to the WEEE directive except batteries.
Please dispose of any materials in accordance with your local recycling regulations.
When discarding the unit, comply with your local rules or regulations.
Batteries should never be thrown away or incinerated but disposed of in accordance with your local regulations concerning chemical wastes.

FRANÇAIS

REMARQUE CONCERNANT LE RECYCLAGE

Le matériel d'emballage de cet appareil est recyclable et peut être réutilisé. Cet appareil et les accessoires qui sont emballés avec celui-ci sont conformes, à l'exception des piles, à la directive DEEE (relative aux déchets d'équipements électriques et électroniques).
Jetez ce matériel conformément aux réglementations de recyclage locales.
Pour mettre l'appareil au rebut, respectez les règles ou réglementations locales.
Les piles ne doivent jamais être jetées ou incinérées, mais être mises au rebut conformément aux réglementations locales concernant les déchets chimiques.

DEUTSCH

RECYCLING-HINWEIS

Das Verpackungsmaterial dieses Produkts ist für Recycling geeignet und kann wiederverwendet werden. Dieses Produkt und das in seinem Verpackungskarton enthaltene Zubehör mit Ausnahme der Batterien entsprechen der WEEE-Direktive.
Bitte beachten Sie bei der Entsorgung irgendwelcher Materialien die örtlichen Recycling-Bestimmungen.
Bei der Entsorgung des Gerätes sind die einschlägigen Umweltschutzauflagen sorgfältig zu befolgen.
Batterien dürfen nicht weggeworfen oder verbrannt werden, sondern müssen gemäß den örtlichen Vorschriften zur Entsorgung von chemischem Abfall entsorgt werden.

NEDERLANDS

RECYCLING VAN APPARATUUR EN VERPAKKINGSMATERIAAL

De verpakking van dit product is geschikt voor recycling. Dit product en de accessoires, als geheel verpakt, zijn het relevante product volgens de WEEE-richtlijn, behalve de batterijen.
Gooi materialen bij het afval volgens de gemeentelijke voorschriften voor recycling.
Gooi dit apparaat bij het afval volgens de gemeentelijke wetten of voorschriften.
Batterijen mogen nooit bij het normale afval en mogen nooit worden verbrand, maar moeten worden weggegooid volgens de gemeentelijke voorschriften voor chemisch afval.

ITALIANO

NOTA SUL RICICLAGGIO

I materiali di imballaggio di questo prodotto sono riciclabili e possono essere riutilizzati. Questo prodotto e gli accessori in dotazione con esso, eccettuate le batterie, rappresentano il prodotto applicabile per la direttiva RAEE (rifiuti di apparecchiature elettriche ed elettroniche).
Smaltirli seguendo le proprie normative locali sul riciclaggio.
Quando si desidera eliminare l'apparecchio, attenersi alle indicazioni e alle normative locali.
Non gettare via le batterie e non bruciarle, ma smaltirle in conformità alle normative locali relative ai rifiuti chimici.

ENGLISH

INFORMATION FOR USERS ON COLLECTION AND DISPOSAL OF OLD EQUIPMENT AND USED BATTERIES

When discarding the unit, comply with local rules or regulations.
Batteries should never be thrown away or incinerated but disposed of in accordance with the local regulations concerning battery disposal.

FRANÇAIS

INFORMATION CONCERNANT LA COLLECTE ET LE TRAITEMENT DES PILES USAGÉES ET DES DÉCHETS D'ÉQUIPEMENTS ÉLECTRIQUES ET ÉLECTRONIQUES

Lorsque vous mettez cet appareil au rebut, respectez les lois ou réglementations en vigueur.
Les piles ne doivent jamais être jetées ou incinérées, mais mises au rebut conformément aux lois en vigueur sur la mise au rebut des piles.

DEUTSCH

VERBRAUCHERINFORMATION ZUR SAMMLUNG UND ENTSORGUNG ALTER ELEKTROGERÄTE UND BENUTZTER BATTERIEN

Beachten Sie bei der Entsorgung des Gerätes die örtlichen Vorschriften und Bestimmungen.
Die Batterien dürfen nicht in den Hausmüll geworfen oder verbrannt werden; bitte entsorgen Sie die Batterien gemäß der örtlichen Vorschriften.

NEDERLANDS

INFORMATIE VOOR GEBRUIKERS VAN INZAMELING EN VERWIJDERING VAN OUDE APPARATEN EN GEBRUIKTE BATTERIJEN

Volg voor het wegdoen van de speler de voorschriften voor de verwijdering van wit- en bruingoed op.
Batterijen mogen nooit worden weggegooid of verbrand, maar moeten volgens de plaatselijke voorschriften betreffende chemisch afval worden verwijderd.

ITALIANO

INFORMAZIONI PER GLI UTENTI SULLA RACCOLTA E LO SMALTIMENTO DI VECCHIA ATTREZZATURA E BATTERIE USATE

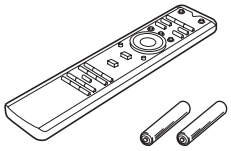
Per lo smaltimento dell'unità, osservare le normative o le leggi locali in vigore.
Non gettare le batterie, né incenerirle, ma smaltirle conformemente alla normativa locale sui rifiuti chimici.

Thank you for choosing the Marantz product.
Please read this User Guide thoroughly to ensure proper operation and installation before using this product.
After reading this User Guide, be sure to keep this for your future reference.

■ Accessories check

Before use, check the below accessories were included in the package.

- Remote controller 1
- Size “AAA” batteries 2



- AC Power cord 1
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FEATURES

The PM-15S2 is a successor model for the PM-15S1, adopting leading-edge technologies developed for the higher-grade PM-11S2 model.

● HDAM-SA3 Module

The HDAM-SA3 is a key amplifier module for a current feedback amplifier and is mounted on the voltage-current conversion block, which is the most important part of an amplifier, for further improved circuit stability and high-speed processing.

● Constant Current Feedback Phono Equalizer

The phono equalizer adopts a system that maintains the current feedback at a constant level within the audible range, and supports both the MC and MM cartridges. Thanks to this system, extremely smooth sound over the entire band of frequencies with less noise can be achieved.

● Linear Control Volume

This volume control amplifier is a combination of the MAS6116 from MAS and the inverse NF-type current feedback amplifier. The amplifier section adopts a fully discrete design, combining the HDAM-SA3 and the HDAM-SA2.

● CD Direct Input Buffer Amplifier

An input buffer amplifier that uses the HDAM-SA2 is mounted directly after the input jacks in order to directly convey high-quality Super Audio CD sound.

● V/I Servo Current Feedback Power Amplifier

To further improve the stability of the power amplifier, the V/I Servo system has been developed. With this system, fluctuations in the output offset voltage are converted into currents and compensated in Current mode. Thus, the audio quality and stability can be enhanced with this newly developed V/I Servo system.

● F.C.B.S.

A Floating Control Bus System enables the user to connect up to four PM-15S2 units for linked operation. A diversity of applications, such as complete bi-amp with two units and 5.1 multichannel connections with three units, become available.

● Power Amplifier Direct Input

With this function, this unit serves as a power amplifier.
As this function can be turned ON or OFF with a button on the front panel, this unit can be used as part of various audio-visual systems.

● Double-Shielded Toroidal Transformer

● Double-Layered Chassis

BEFORE USE

EQUIPMENT MAINS WORKING SETTING

Your Marantz product has been prepared to comply with the household power and safety requirements that exist in your area.

– Power requirements (U.S.A.).....AC 120V 60Hz

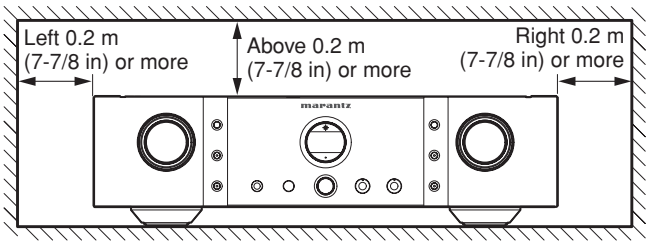
– Power requirements (Europe) .....AC 230V 50/60Hz

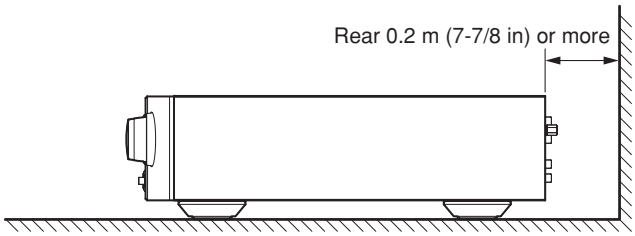
INAPPROPRIATE PLACES FOR INSTALLATION

To keep your amplifier in perfect working order for the longest possible time, avoid installing the unit in the following locations.

- Wherever it will be exposed to direct sunlight
- Wherever it will be close to a heater or other heat-radiating appliance
- Wherever the humidity is high or ventilation is poor
- Wherever it is very dusty
- Wherever it will be subject to vibration
- On top of a rickety stand or in an unstable location which is tilted at an angle
- Near windows where there is a chance of exposure to rain, etc.
- On top of an amplifier or other component which dissipates a great deal of heat

To ensure proper heat dissipation, install the unit while leaving clearances between the unit and wall or other components, as shown in the figure below.





■ Do not place objects on top

- Refrain from placing any objects on top of the unit.

Do not touch hot areas, especially around the "hot surface mark" during and immediately after use.

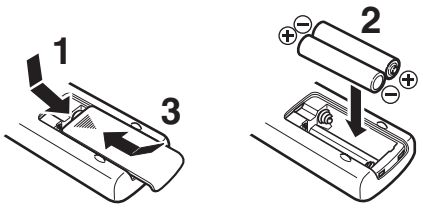
During and immediately after use, this product is hot in areas other than the controls and rear panel connection jacks. Do not touch hot areas, especially around the "hot surface mark" and the top panel. Contact with hot areas can cause burns.

USAGE OF REMOTE CONTROLLER

■ Loading batteries

Before using the remote controller for the first time, load the batteries in the remote controller. The batteries provided are used to verify the operations of the remote controller only.

1. Remove the battery cover.
2. Paying close attention to polarity indicators (⊕ plus and ⊖ minus), be sure to insert batteries correctly and as indicated.
3. Return the battery cover to its original position.



● Cautions on handling batteries

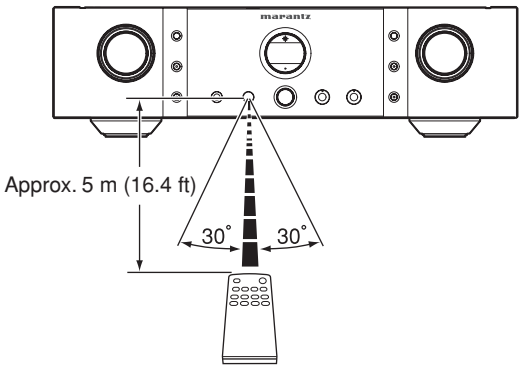
Misusing batteries can lead to fire, injury or soiling of surrounding area as a result of leakage, rupture or corrosion.
Carefully read the following precautions before using batteries.

- Insert the batteries while ensuring that their ⊕ and ⊖ poles are properly aligned with the corresponding markings on the remote controller.
- Batteries of the same size and shape may have different voltages. Do not use any battery except the type indicated. Do not use old and new batteries together, and do not use different types of batteries together.
- Do not recharge batteries.
- Keep batteries out of the reach of children. Seek medical attention if accidentally ingested.
- Do not carry or store batteries together with metal ball point pens, necklaces, coins, hair pins, etc.
- If you will not be using the remote controller for an extended time (1 month or more), remove the batteries to prevent leakage. If batteries leak, do not touch the fluid with bare hands. Wipe away any fluid in the case and put in new batteries. When doing so, handle with care, because fluid on skin or clothing presents a burn risk. If you accidentally get fluid on your skin, immediately wash with water and seek medical attention.
- Do not heat or take apart batteries or put them in flame or water.

- When disposing of used batteries, please comply with governmental regulations or environmental public instruction's rules that apply in your country or area.
- Do not expose the batteries to excessive heat such as direct sunlight, fire or the like.

■ Operational range

Operate the unit with the remote controller within the range of the illustration below.

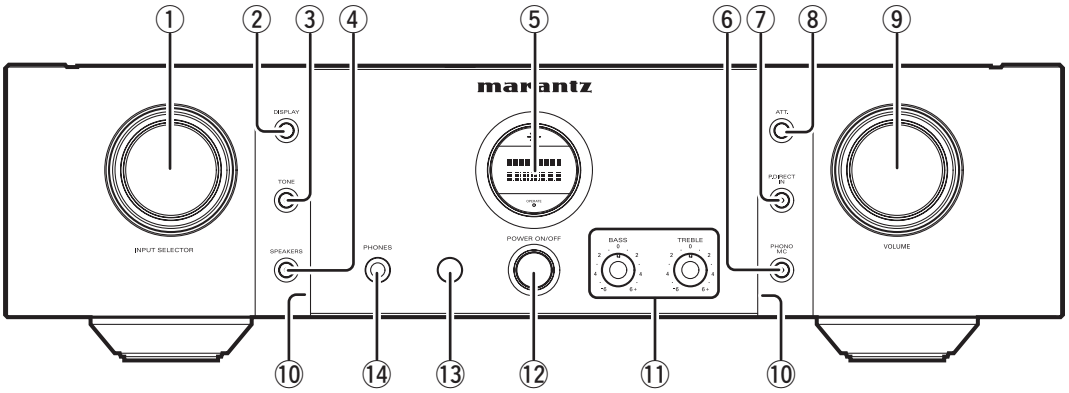


Precautions

- *Do not allow direct sunlight, an inverter fluorescent light or other strong source of light to shine onto the player's infrared signal reception window (remote sensor). Otherwise, the operation of the remote control unit may be disabled.*
- *Bear in mind that operating the remote control unit may cause other devices operated by infrared rays to be operated by mistake.*
- *The remote control unit cannot be operated if the space between the controller and the player's remote sensor is obstructed.*
- *Do not place any objects on top of the remote control unit. Doing so may cause one or more buttons to be held down which will cause the batteries to run down.*

NAMES AND FUNCTIONS

FRONT PANEL



① INPUT SELECTOR Knob

This knob is for selecting the input source to use in playback and recording. The selected input source is displayed in the display.

② DISPLAY Button

This button turns the display and side illumination ON and OFF. For instructions on **HOW TO OPERATE THE SIDE ILLUMINATION**, see page. 19.

③ TONE Button

This button turns the tone control ON or OFF.

④ SPEAKERS Button

This button turns the speaker output to the speakers connected to the SPEAKER SYSTEMS terminals on the rear panel ON or OFF. To listen with headphones, turn speaker output OFF with this button.

⑤ Display

Indicate the selected input source, volume level, and setting status.

⑥ PHONO MC Button

This button switches the phono equalizer between MC and MM. When MC is set, the center of the button is lit a blue color. Set the phono equalizer amplifier according to the type of cartridge you use.

⑦ P.DIRECT IN Button

To use this unit as a power amplifier, hold this button pressed for at least 3 seconds until the indicator lights.
While this unit serves as a power amplifier, the volume level cannot be adjusted with the VOLUME knob.
To cancel power amplifier direct mode, hold this button pressed again for at least 3 seconds.
See also ❺ P.DIRECT IN Jacks, page 7.

⑧ ATT Button

This button attenuates the volume with one press of the button. For instructions on **How to Set the Attenuation Level**, see page. 19.

⑨ VOLUME Knob

This knob is for setting the volume. The volume level is displayed on the display.
During power amplifier direct mode, the volume cannot be changed.

⑩ Illumination Lamp

The illumination lamp casts a blue light over the switches and buttons. It can be turned ON and OFF with the DISPLAY button. For instructions on **HOW TO OPERATE THE SIDE ILLUMINATION**, see page. 19.

⑪ Tone Control Knobs (BASS, TREBLE)

These knobs control bass and treble tones.
The bass and treble tones are increased as the corresponding knobs are turned clockwise and decreased as they are turned counterclockwise.
When the TONE button is set to OFF, the tone cannot be controlled.

⑫ POWER ON/OFF Switch

This switch turns power to the unit ON and OFF. When pressed, power is activated and the blue indicator in the display lights up. Pressing the switch again turns the power OFF.

⑬ Infrared Receptor Window

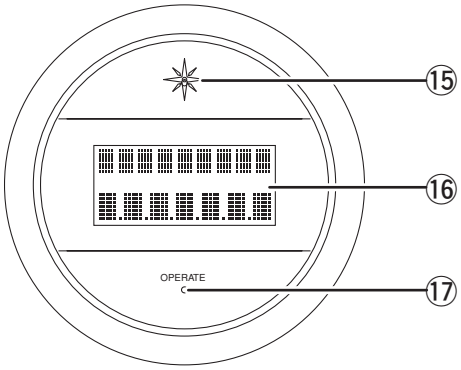
This receptor window receives control signals sent from the included remote controller.

⑭ PHONES Jack

This jack is for connecting headphones with a standard stereo plug.

NAMES AND FUNCTIONS

DISPLAY



⑮ Power Indicator

This indicator is lit a blue color while power to the unit is ON.

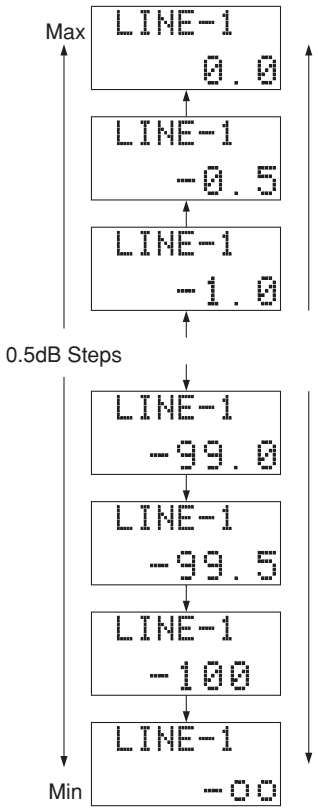
⑯ Display Panel

Approximately 3 seconds after the power to the unit is activated, the ID number is displayed here.

After that, the top line displays the selected input source, and the bottom line displays the volume level. The volume attenuation (dB units) is displayed.

During power amplifier direct mode, the volume cannot be changed.

VOLUME Indicator Volume Display



Turn the VOLUME knob on the unit to the right, or press the VOLUME ▲ button on the remote controller.

Turn the VOLUME knob on the unit to the left, or press the VOLUME ▼ button on the remote controller.

The display also displays the setting values when adjusting the left-right level balance. For instructions on **How to Trim Volume Level**, see page. 18. Other messages that correspond to various operations are also displayed.

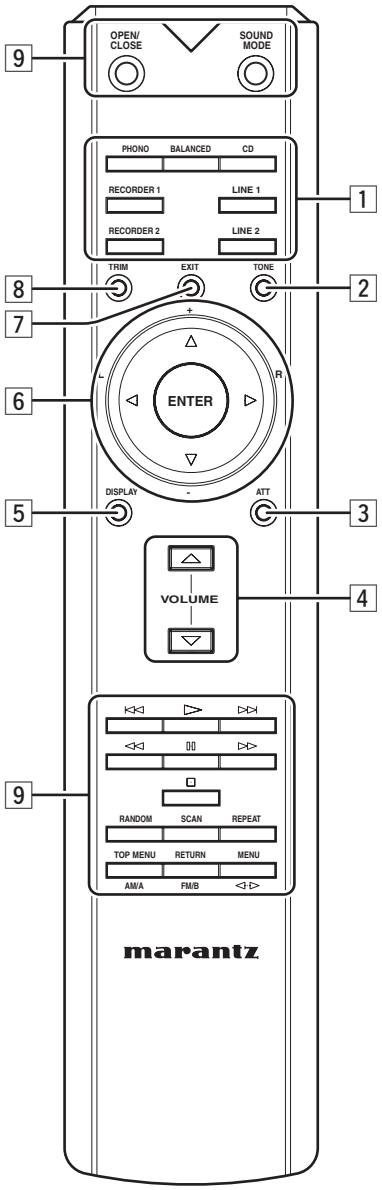
⑰ OPERATE Indicator

This indicator indicates the operating status of the unit.
When the ID is set to “0” for standalone operation, it is lit a red color. When multiple amplifiers are connected by F.C.B.S., only ID number “1” for the master is lit red color. The slave amplifier whose indicator does not light a red color cannot be used to operate other units in sync.
For more information on **F.C.B.S.**, see page. 16.
The indicator flashes red if a protective circuit trips.

NAMES AND FUNCTIONS

REMOTE CONTROLLER

This remote controller can be used to control the PM-15S2 and Marantz Super Audio CD players or DVD players that have a remote control receptor. The operations possible by remote control may differ with each component, therefore see the instruction manual that came with the component.



1 Input Selector Buttons

These buttons are for selecting the input source to use in playback.

2 TONE Button

This button turns tone (bass /treble) control ON and OFF.

3 ATT Button

This button attenuates volume level with one press.
(page. 19)

4 VOLUME Buttons

▲ : This button increases the volume level.
▼ : This button decreases the volume level.

5 DISPLAY Button

This button turns the display ON and OFF.

6 Cursor Buttons

In the Trimming Mode

These buttons are for selecting the channel to trim and the trimming level.

ENTER : Not used.
▶ / R : This button selects the R channel for trimming.
◀ / L : This button selects the L channel for trimming.
▲ / + : This button increases the trimming level.
▼ / – : This button decreases the trimming level.

Other than the Trimming Mode

▶, ◀, ▲, ▼ and ENTER: These buttons are for selecting settings items on menu displays of Marantz DVD players, etc. For operations of supported Marantz products, see the tables on the 20 page and the instruction manual of the Marantz component.

7 EXIT Button

This button ends the trimming mode when trimming is finished.

8 TRIM Button

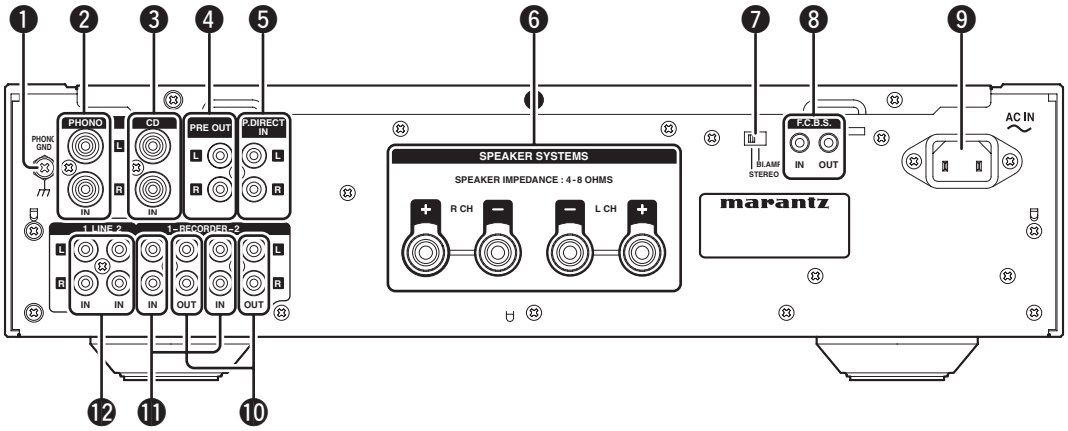
This button starts the various trim adjustments. (Page. 18)
When multiple units are connected by F.C.B.S., this button selects the unit with which to perform trimming.

9 Component Operating Buttons

These buttons are for operating Marantz Super Audio CD players, DVD players, etc. For operations of supported Marantz products, see the tables on the 20 page and the instruction manual of the Marantz component.

NAMES AND FUNCTIONS

REAR PANEL



❶ PHONO GND Terminal

Connect the grounding wire from an analog record player here.

❷ PHONO IN Jacks

These jacks are for connecting to an analog record player. Both MC and MM cartridges can be used, therefore set the PHONO MC button on the front panel according to the type of cartridge you are using.

❸ CD IN Jacks

These jacks are for connecting to the output jacks of a Super Audio CD player, etc.

❹ PRE OUT Jacks

These jacks are for connecting to the input jacks of another main amplifier or active subwoofer.

❺ P.DIRECT IN Jacks

These input jacks are used when this unit is used as a power amplifier in power amplifier direct mode. Connect your preamplifier to these jacks, if you have them. During power amplifier direct mode, the volume cannot be changed.

❻ SPEAKER SYSTEMS Terminals

These terminals are for connecting a speaker systems. Speaker output can be turned ON/OFF from the SPEAKERS button on the front panel.
When in bi-amp mode, the signals input into the L channel are output from both channels.

❼ AMP MODE Switch

STEREO : Set to use this unit as a normal two-channel stereo amplifier.

BI-AMP : Set to use this unit in complete bi-amp connection.

For **STEREO COMPLETE BI-AMP mode**, see page 13.

❽ F.C.B.S. IN/OUT Jacks

These jacks are used to connect and synchronize up to four amplifiers. For instructions on use and connections, see **F.C.B.S.** (page. 16).

❾ AC IN Socket

Connect this socket to the power outlet using the included power cord.

❿ RECORDER 1/2 Output Jacks

These jacks are for connecting to the recording input jacks of a tape deck etc.

⓫ RECORDER 1/2 Input Jacks

These jacks are for connecting to the output jacks of a tape deck or other type of recording device.

⓬ LINE 1/2 IN Jacks

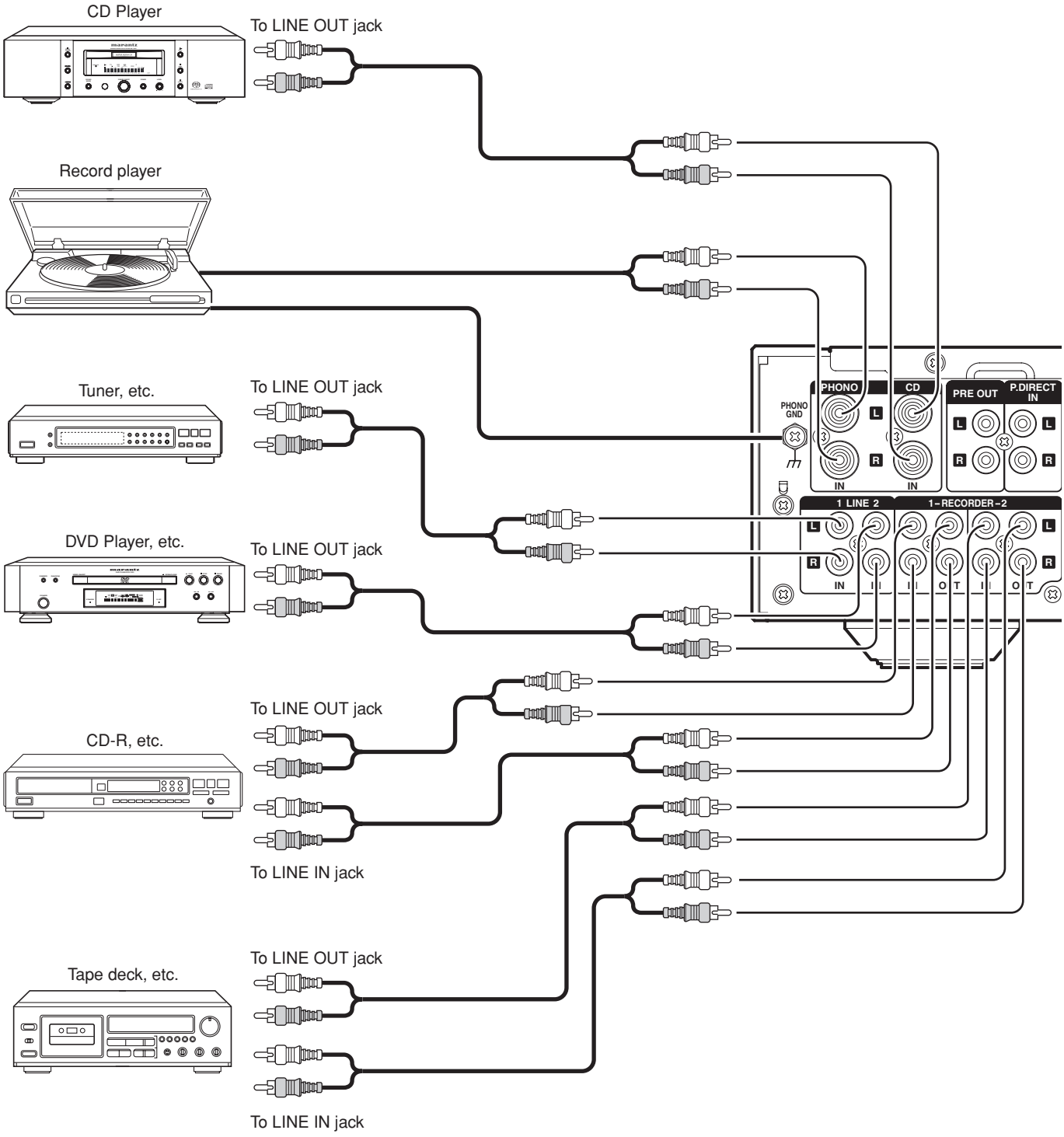
These jacks are for connecting to the output jacks of a tuner, DVD player, etc.

BASIC CONNECTIONS

CONNECTING AUDIO COMPONENTS

Notes:

- *Do not connect this unit and other components to mains power until all connections between components have been completed.*
- *Insert all plugs and connectors securely. Incomplete connections may make noise.*
- *Be sure to connect the left and right channels properly.*
  Red connectors are for the R (right) channel, and white connectors are for the L (left) channel.
- *Be sure to connect input and output properly.*
- *Refer to the instructions for each component that is connected to this unit.*
- *Do not tie the connected cable into a bundle with the power supply cord or speaker cables. Doing so may cause noise.*



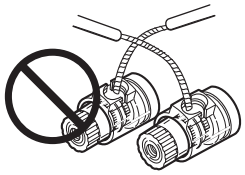
BASIC CONNECTIONS

CONNECTING SPEAKER SYSTEMS

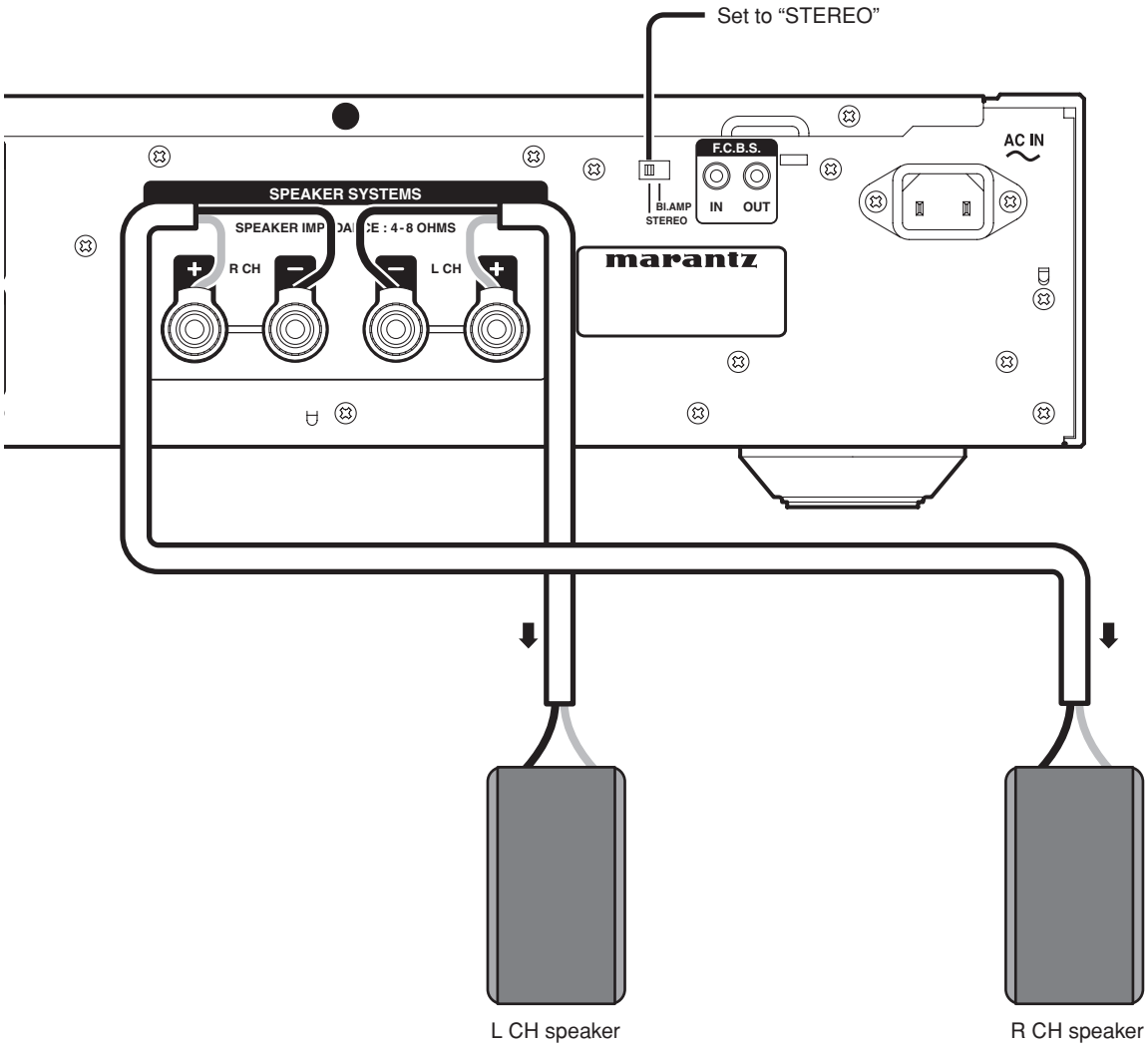
- Be sure to use speakers with the specified impedance as shown on the rear panel of this unit.

Note:

- *To prevent damage to circuitry, do not let the bare speaker wires touch each other and do not let them touch any metal part of this unit.*



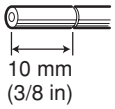
- *Do not touch the speaker terminals when the power is on. It may cause you to receive an electric shocks.*
- *Do not connect two or more speaker cables to a speaker terminal at the same time. If you do so, this unit may be damaged.*
- *Be sure to connect the positive and negative cables for the speaker properly. If they are miss-connected, the signal phase will be reversed and the signal quality will be corrupted.*



BASIC CONNECTIONS

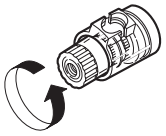
■ Wiring speaker cable

1. Strip away approx. 10 mm (3/8 inch) of wire insulation.

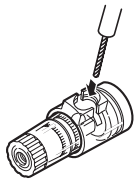


2. Twist the bared wire ends tight, to prevent short circuits.

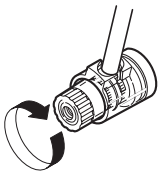
3. Loosen the knob by turning it counterclockwise.



4. Insert the bare part of the wire into the hole in side of each terminal.

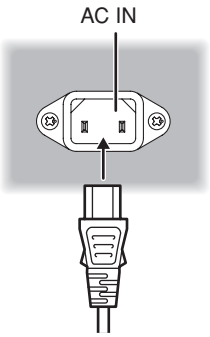


5. Tighten the knob by turning it clockwise to secure the wire.



CONNECTING OF AC POWER CABLE

1. Plug the supplied AC power cable to the AC IN socket on the rear panel of the main unit.

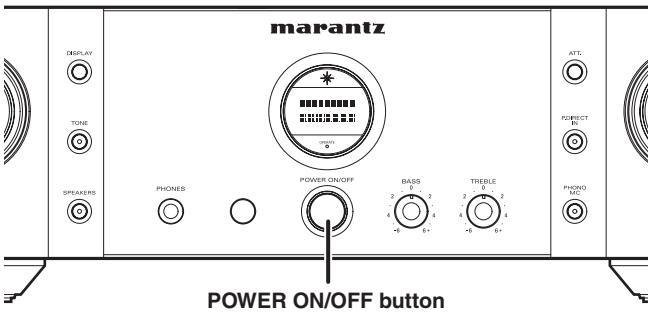


2. Plug the power cable into an AC outlet.

BASIC OPERATIONS

AMP OPERATION

■ Turning the Unit ON



1. Turn on the connected audio equipment, such as a CD player.

2. Press the **POWER ON/OFF** button of this unit.

■ Input Source Selection

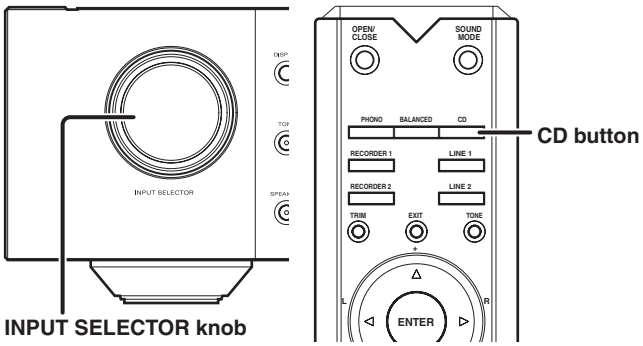
Example: CD playback

(Operation with the controls on the main unit)

Set to CD by turning the **INPUT SELECTOR** knob.

(Operation with the controls on the remote controller)

Press the **CD** button on the remote controller.

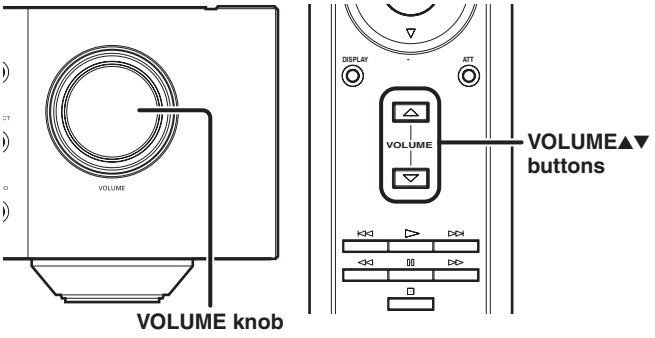


To use the speakers connected to the SPEAKER SYSTEMS terminals, press the **SPEAKERS** button on the front panel to set it to ON.

BASIC OPERATIONS

■ Volume Adjustment

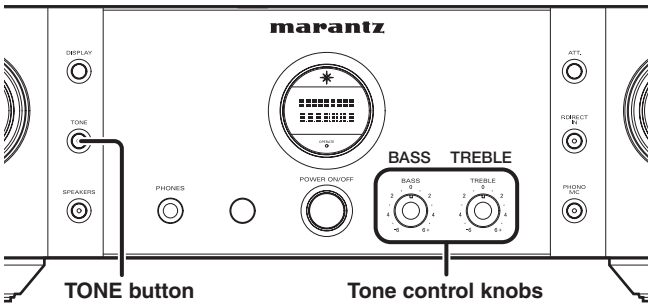
Adjust the volume as desired with the **VOLUME** knob on the front panel or the **VOLUME ▲** or **▼** button on the remote controller.

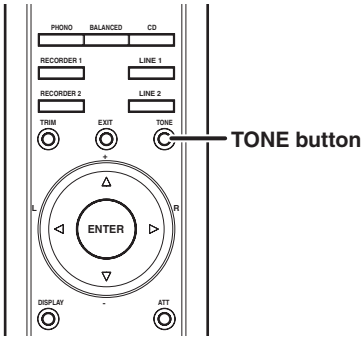


To increase volume, turn the **VOLUME** knob clockwise or press the **VOLUME ▲** button on the remote controller.
To decrease volume, turn the **VOLUME** knob counterclockwise or press the **VOLUME ▼** button on the remote controller.
When the **VOLUME** knob on the front panel is turned slowly, the volume can be fine-adjusted in 0.5 dB steps, whereas when it is turned rapidly, the volume level changes greatly.

■ Tone Adjustment

According to your preference and acoustic conditions of the room, the bass and treble tones can be adjusted.

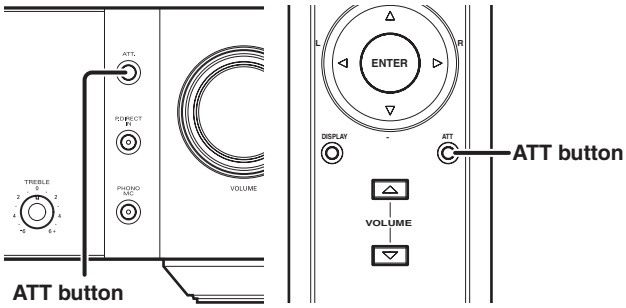




Before adjusting the tone, press the **TONE** button on the front panel or on the remote controller to set it to ON.
For bass tone adjustment, turn the **BASS** control knob.
For treble tone adjustment, turn the **TREBLE** control knob.

■ Attenuating the Volume Level Temporarily

The volume level from the speakers can be temporarily attenuated.



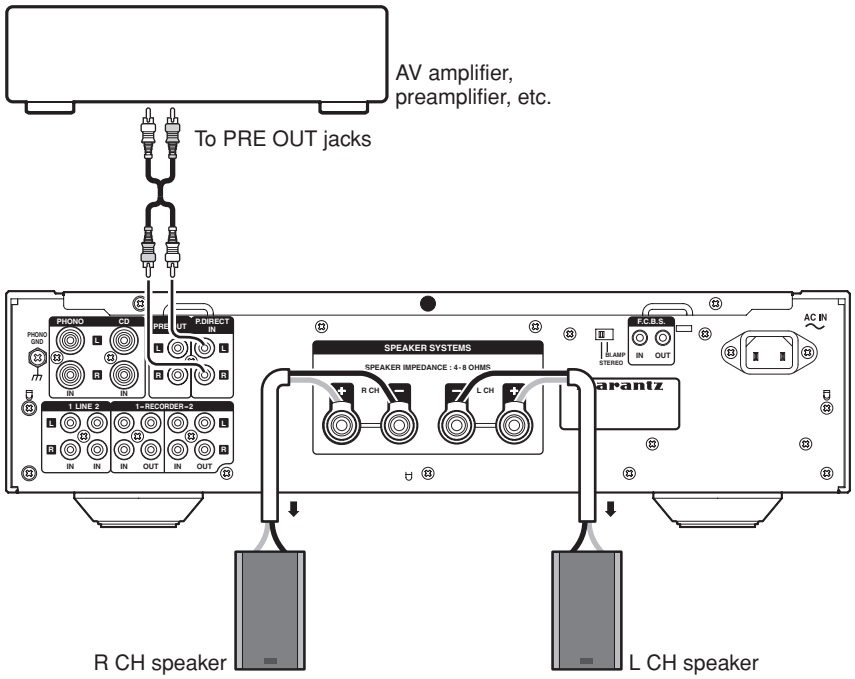
1. Press the **ATT** button on the front panel or on the remote controller to attenuate the output volume level.
2. Press the **ATT** button on the front panel or on the remote controller again to cancel attenuation.
   For details on **How to Set Attenuation Level**, see page 19.

ADVANCED CONNECTIONS

CONNECTION TO THE P.DIRECT IN JACKS

If an AV amplifier or preamplifier is available, this unit can be used as a power amplifier, using the connections shown below.
For this use, hold the P.DIRECT IN button on the front panel of this unit pressed for at least 3 seconds to set it to ON. “POWER AMP DIRECT” is displayed on the display.

For details on preamplifier operations, refer to the operation manual of the preamplifier.

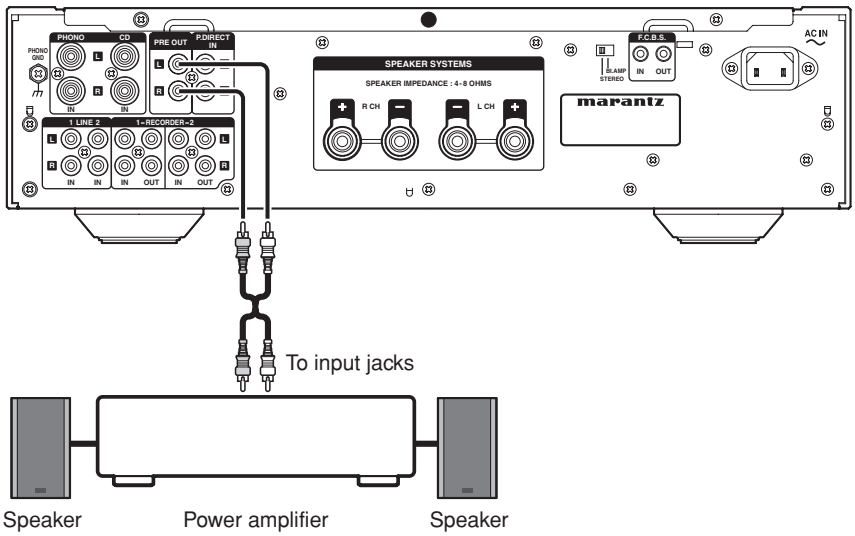


Notes:

- *To cancel power amplifier direct mode, hold the P.DIRECT IN button on the front panel pressed for at least 3 seconds.*
- *Before setting the unit to power amplifier direct mode, turn off the preamplifier or set the volume level to the minimum.*

CONNECTION TO THE PRE OUT JACKS

If a power amplifier is available, this unit can be used as a preamplifier, using the connections shown below.
For details on connections between the power amplifier and speaker system, refer to the operation manual of the power amplifier to be used.



ADVANCED CONNECTIONS

STEREO COMPLETE BI-AMP CONNECTION

1. The two amplifiers are connected by F.C.B.S. for synchronized use. For F.C.B.S. connection, connect with commercially available monaural ⇔ monaural miniplugs or stereo ⇔ stereo miniplugs as described in **F.C.B.S.** (page. 16).

2. Set the ID numbers as explained in **HOW TO SET ID NUMBERS** (page. 17). When the ID1 amplifier is operated, the ID 2 amplifier will operate in sync. Set the AMP MODE switch on the rear panel to BI-AMP, referring to **BI-AMP MODE** (page 17).

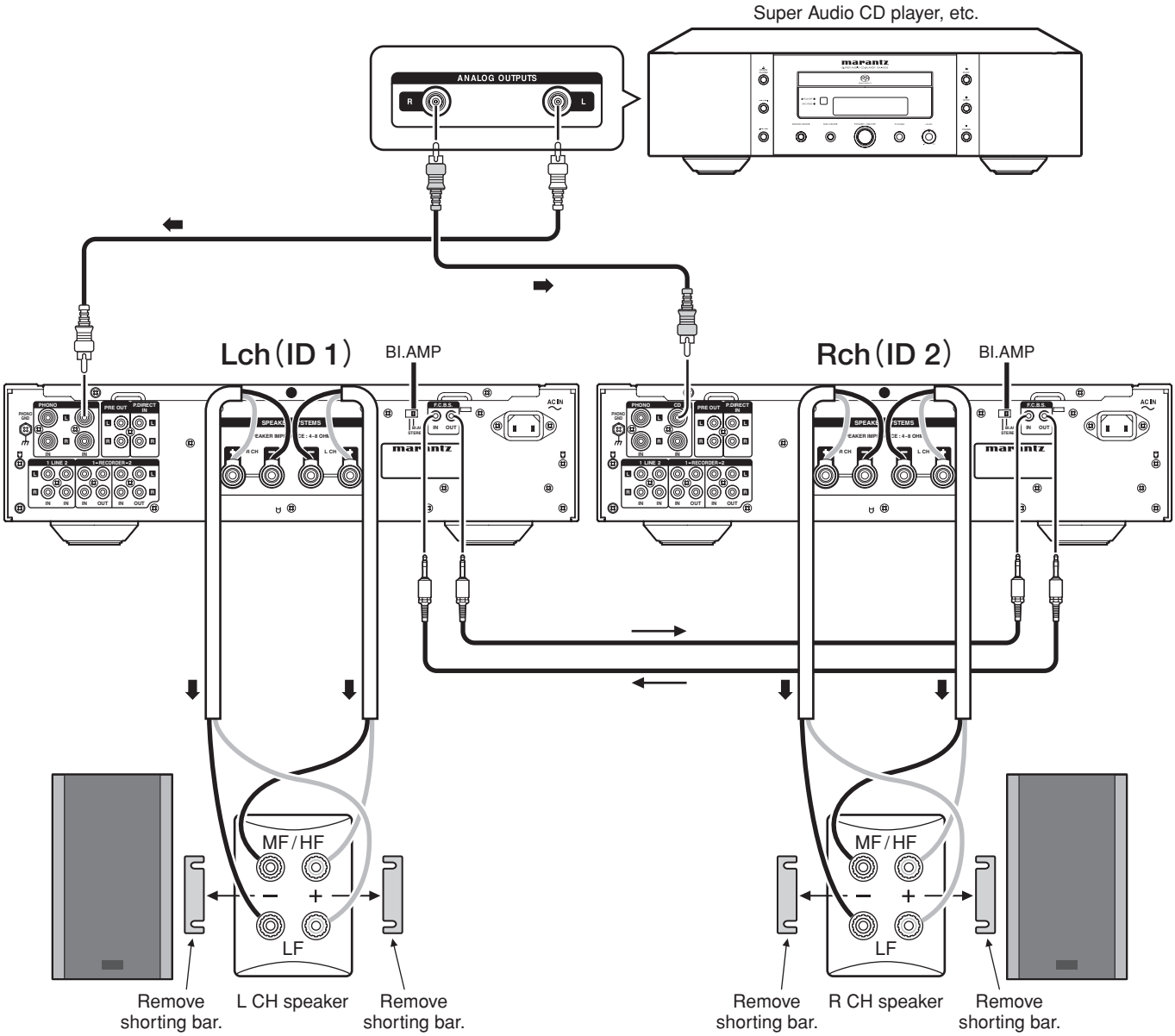
3. Connect the analog output of the CD player etc. to the L ch input jacks of both pre-amps.
As both amplifiers operate as monaural amplifiers in BI-AMP mode, do not use the R channel of the input jacks on these units.
Set the **SPEAKERS** button on the front panel of the two amplifiers to ON.

● About Complete Bi-Amp

Proposed by Marantz, the complete bi-amp connection is an advanced technique that enhances sound quality. The low and mid/high amplifiers are separated and independent of the preamplifier, therefore interference between low and mid/high sounds is reduced to a minimum. As a result, a wide sound environment can be reproduced.

Note:

Speaker systems connected using complete bi-amp connections must support bi-amp connections. Before connecting your speakers, check in the instruction manual that came with the speakers or contact the manufacturer to confirm whether they support bi-amp connection.



ADVANCED CONNECTIONS

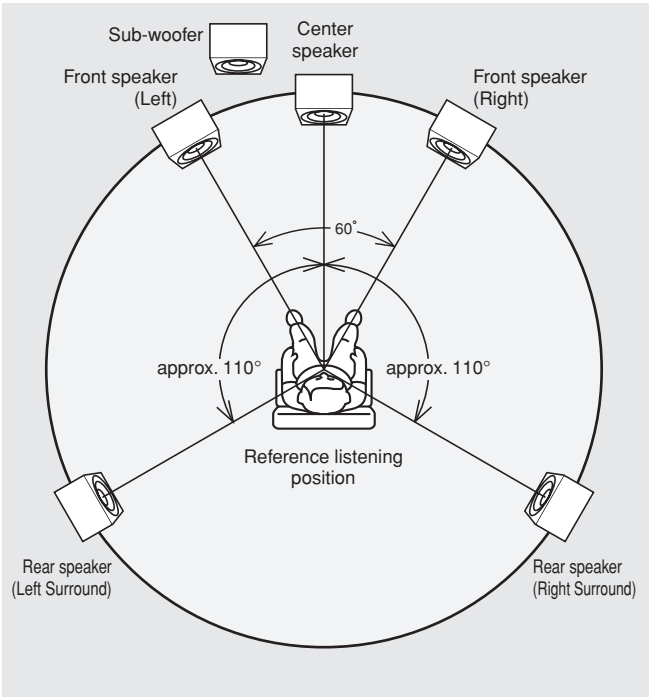
■ Speaker positioning for Super Audio multi-channel sound

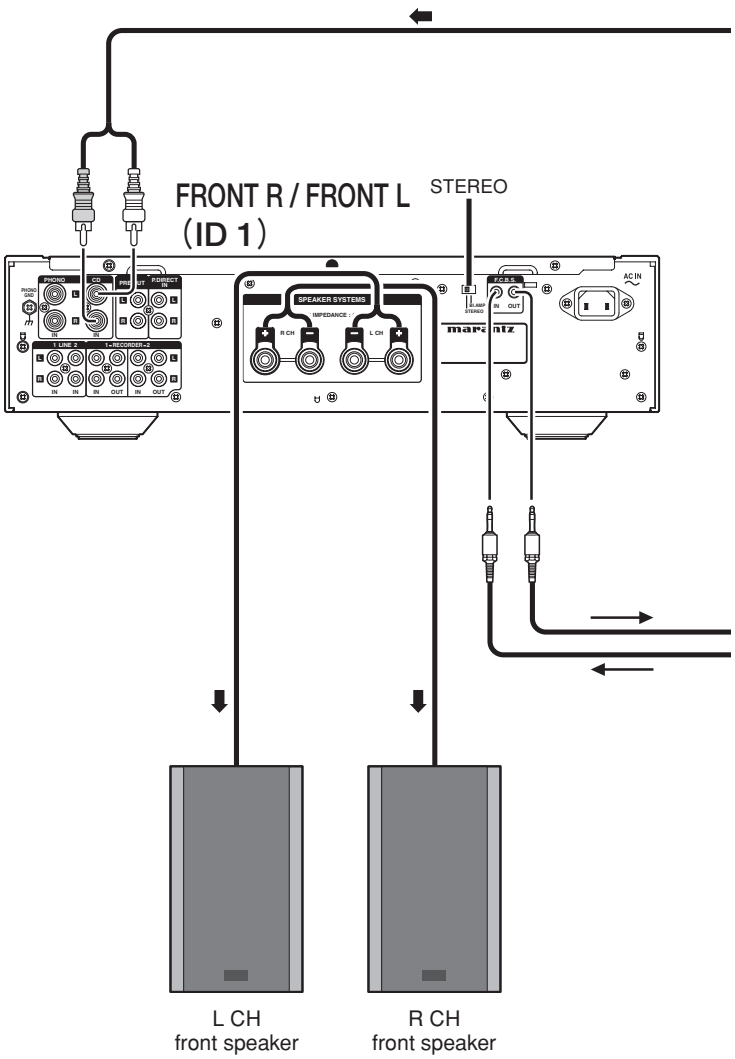
In order to enjoy Super Audio CD multi-channel sound with the best possible acoustics, it is recommended to position speakers as specified in ITU-R BS.775-1 of the International Telecommunication Union (ITU). Super Audio CD multi-channel discs are recorded and mixed so as to achieve the optimum effect with a speaker system laid out as specified in ITU-R BS.775-1.

- With Super Audio CD multi-channel discs, the music signals are basically recorded using 5 channels (3 - 6 channels sometimes), but in some cases, LFE (for subwoofer) is recorded as a sixth channel. Each disc indicates how many channels have been recorded on it.
- The basic layout is 3 speakers in the front and 2 in the back since multi-channel discs usually have 5 channels. The 2 front, 1 center and 2 surround (rear) speakers should be set in a circle around the listening point as shown below. If using speakers of differing sizes, adjust volume balance from the amplifier.
- The location of the subwoofer in the figure is just for explanatory purposes. It can be located anywhere in the room. For connection and positioning instructions, see the instruction manual that came with the subwoofer.

● ITU (International Telecommunication Union)

The ITU is a special organization of the United Nations. It consists of a number of organs, one of which is the Radio Broadcasting Section.
ITU-R BS in the recommendation which consists of standards relating to broadcasting (audio) operations, one of which is the ITU-R BS.775-1 which governs “multi-channel stereo sound systems.”



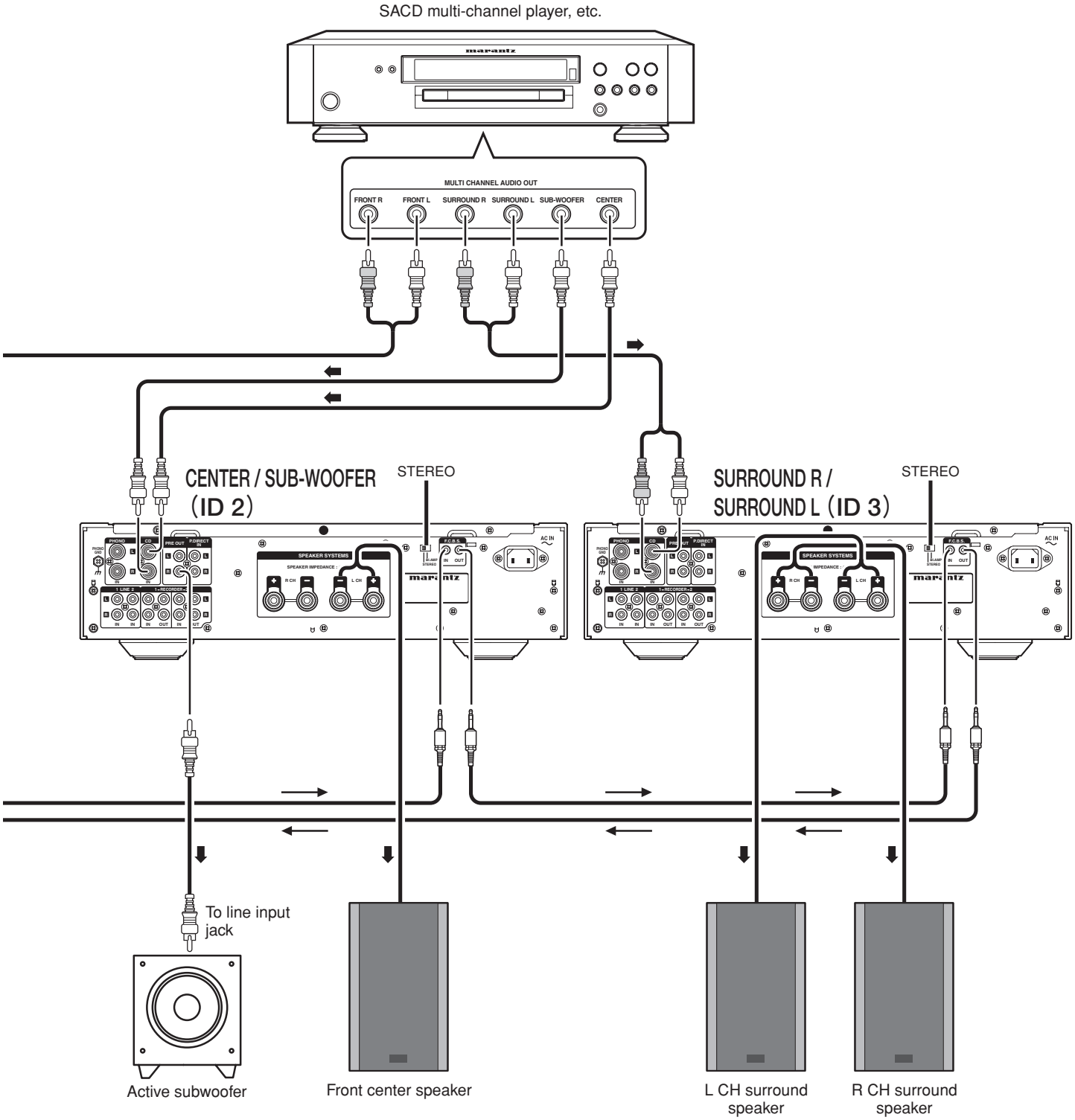


ADVANCED CONNECTIONS

BASIC CONNECTION FOR 5.1 MULTI-CHANNEL PLAYBACK

1. The three units are connected using F.C.B.S. For the F.C.B.S connection, prepare 3 audio connection cables, and refer to **F.C.B.S.** on page 16.
2. Set the ID numbers for the three amplifiers as explained in **HOW TO SET ID NUMBERS** (page. 17).

   When the ID 1 unit is operated, ID 2 and ID 3 units will operate in sync.
3. Connect the outputs of players that have 5.1 channel analog outputs to each of the three units.
4. Set the **SPEAKERS** button on the front panel of the three amplifiers to ON.
5. Set the AMP MODE switch on the rear panel to STEREO.

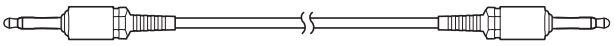


ADVANCED CONNECTIONS

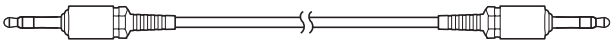
F.C.B.S.

F.C.B.S. (Floating Control Bus System) is a communication system that connects up to four PM-15S2s over a dedicated bus line so as to enable synchronized operations amongst them via 2-way data communications.
Prepare the correct number of portable audio connection cables for the number of units to be connected. Any of the following two types of connecting cables can be used.

● **Monaural miniplug ⇔ monaural miniplug connecting cable**



● **Stereo miniplug ⇔ stereo miniplug connecting cable**



Note:

Do not use connecting cables that contain resistance.

The figure below shows an example of four PM-15S2s connected by F.C.B.S. The top unit is the master unit with ID 1 and controls the three slave units with ID 2~4. When the master unit is operated, the input source, volume level, ATT feature, display and tone control ON/OFF feature of the slave units are operated in sync with the master unit.

This function can be applied to various usages such as complete bi-amp with 2 PM-15S2s (page. 13), and 5.1ch multi-channel with 3 PM-15S2s (page. 14, 15).

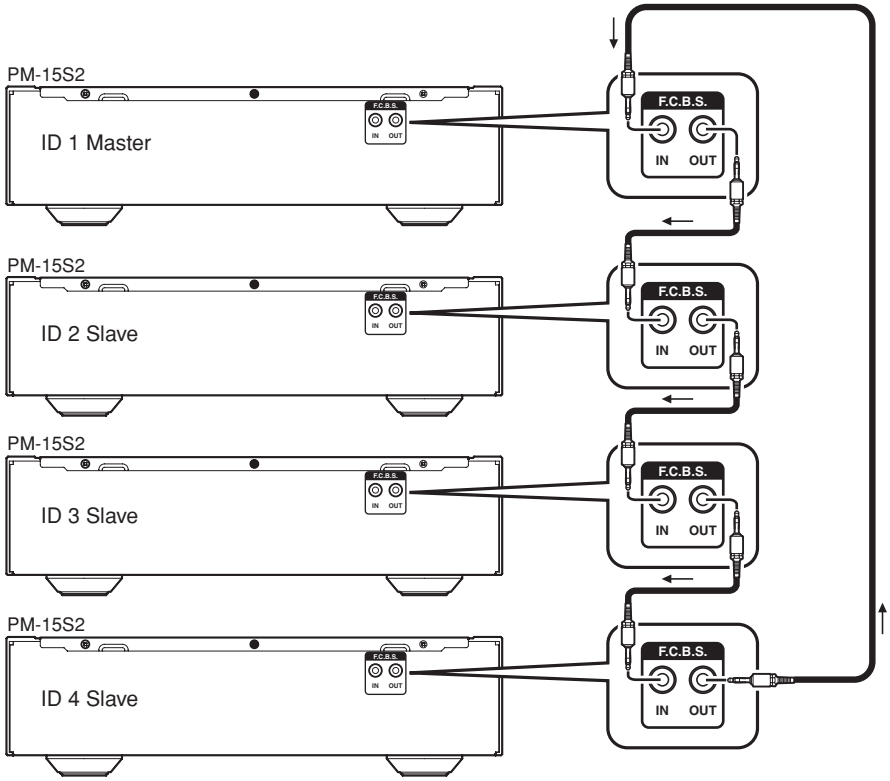
■ F.C.B.S. Connection with the PM-11S2 Unit

A multichannel system can be configured by connecting the PM-15S2 units with a higher-grade PM-11S2 unit, using F.C.B.S.
As higher-grade functions are provided with the PM-11S2 than with this unit, follow the connection conditions described below for an F.C.B.S. connection between the PM-11S2 and this unit.

- Limit the number of PM-11S2 units to one and that of the PM-15S2 units to up to 3.
- Set the PM-11S2 unit as the ID 1 Master and the PM-15S2 units as one of the ID2–4 slave units.

For details on connections, see the connection examples on pages 14 and 15. If the PM-15S2 for the front L/R channels shown in the connection example is replaced with a PM-11S2, the audio quality of the front channels could be improved (also see the operation manual for the PM-11S2.)
To use the 5.1 multichannel system shown as a connection example as a 2-channel stereo system, turn off the ID2 and ID3 amplifiers. Thus, the PM-11S2 can be used alone.

To turn the power of multiple F.C.B.S.-connected units ON/OFF, switch the power ON in order of lowest to highest ID number, and switch the power OFF in order of highest to lowest ID number.



ADVANCED OPERATIONS

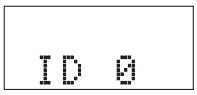
HOW TO SET ID NUMBERS

If using this unit by itself as a stereo amplifier, set the ID number to “0” (Default setting is “0”).

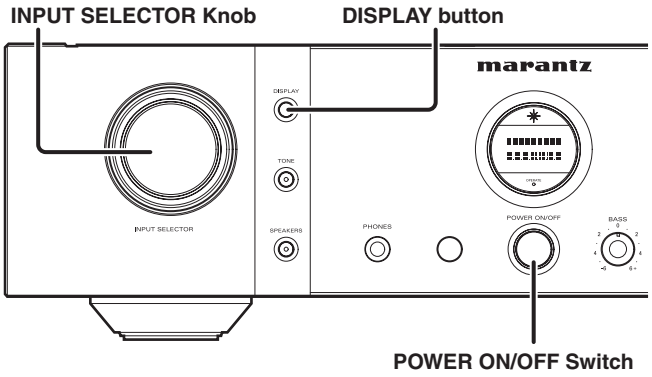
Note:

If the ID number is set to a number other than “0”, this unit cannot be used for standalone operation.

The ID number of the unit appears on the display for about 3 seconds after the power is activated.

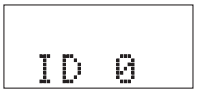


When multiple PM-15S2s are connected, a unique ID number must be set of each one in order to distinguish between them.
The unit that centrally controls the other units takes ID 1. The unit with ID1 is called the “Master”. The other units that synchronize with the master are called “slaves” and take IDs “2” ~ “4”.



Set ID numbers as follows.

1. While pressing and holding the **DISPLAY** button, press the **POWER ON/OFF** switch.



2. Turn the **INPUT SELECTOR** knob to the desired ID number.

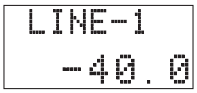
After finishing setting the ID number, turn power to the unit OFF.
The setting is stored in memory and becomes active the next time power to the unit is switched ON.

BI-AMP MODE

This unit is equipped with a bi-amp mode to enable a complete bi-amp connection using two PM-15S2s. This complete bi-amp connection is a high-end technique for enhancing sound quality, proposed by Marantz. Using this system, the bi-amp supporting speaker system is separated from the preamplifiers that separately drive the low and high speakers. (For more information, see **STEREO COMPLETE BI-AMP CONNECTION** (page.13).)

The bi-amp mode is engaged by setting the operating mode switch on the rear panel to “BI-AMP”.
In the bi-amp mode, the signals input to the L channel are sent to the left and right volume amplifiers from the input selector.
The figures below show example displays in the stereo and bi-amp modes.

Stereo mode



Bi-amp mode

Notes:

- *Always turn the power to the unit OFF before changing the operating mode switch setting. Turning the power ON again activates the new setting.*
- *When in bi-amp mode, the R channel input jacks cannot be used.*
- *When in bi-amp mode, the signals input into the L channel are output from both channels. Therefore, the same signals are output from the L channel and R channel in RECORDER OUT, PRE OUT, PHONES OUT.*

ADVANCED OPERATIONS

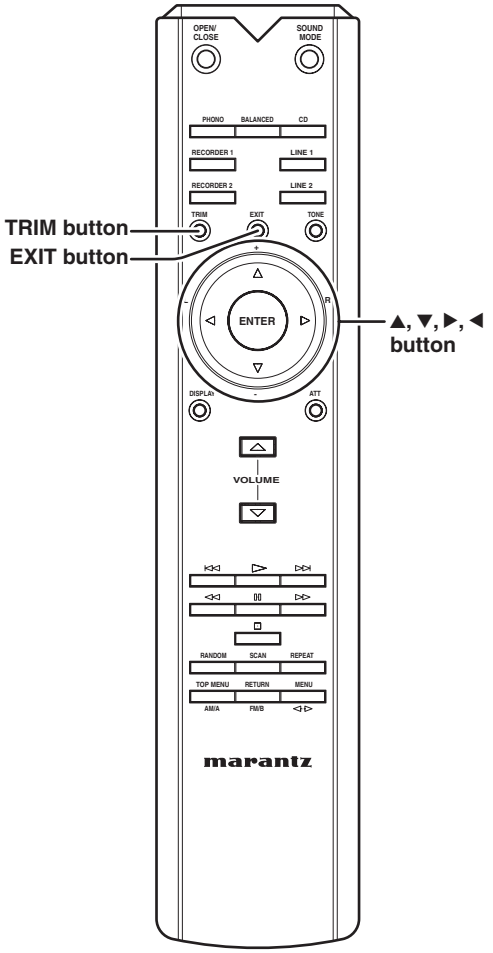
TRIMMING

LEVEL trimming that adjusts the volume level on left and right channels

Note:

Trimming is performed from the remote controller.

TRIM : This button starts trimming. When multiple PM-15S2s are connected, this button selects the amplifier with which to perform trimming. In such case, trimming is performed in the order of the lowest to highest ID number.
EXIT : This button ends trimming.
▲ : This button increases the trimming level.
▼ : This button decreases the trimming level.
▶ : This button selects the R channel for trimming.
◀ : This button selects the L channel for trimming.
ENTER : Not used



■ How to Trim Volume Level

The volume level of the left and right channels can be trimmed in 0.5dB steps across a 0.0 to -9.0dB range. When the unit is shipped from the factory, the volume level is set to 0.0dB (maximum).

1. Press the **TRIM** button once to access the LEVEL trimming mode.

2. The flashing “0.0” on the left indicates that trimming is activated for the left channel volume level. Press the ▲ and ▼ buttons to set the volume level of the left channel.

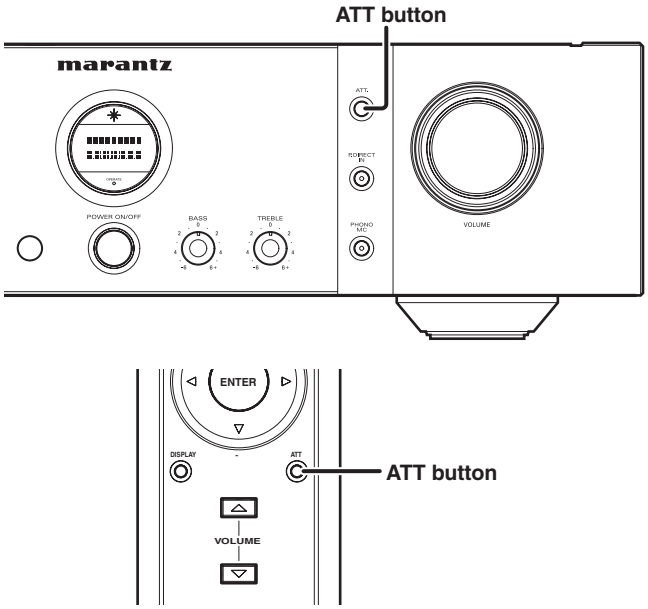
3. Press the ▶ button to set the right channel volume level. When the right side “0.0” starts flashing, trimming is activated for the right channel volume level. Press the ▲ and ▼ buttons to set the volume level of the right channel.

4. To trim the volume level of the ID 2 (slave) unit, press the TRIM button again and set the volume level as in steps 1~3. After that, pressing the **TRIM** button again allows you to trim the volume level for the “ID 3” unit and so forth.

5. When finished with volume level trimming, press the **EXIT** button.

ADVANCED OPERATIONS

ATT (ATTENUATION)



ATT is a one-touch feature for reducing the volume level. When the **ATT** button on either the unit or remote controller is pressed, the volume level is attenuated.

1. When the **ATT** button on either the unit or the remote controller is pressed, "ATT" flashes on the display and the volume level is reduced.
When the **ATT** button is pressed again or the volume is increased/decreased using the controls, the mode is canceled and the original volume level is restored.

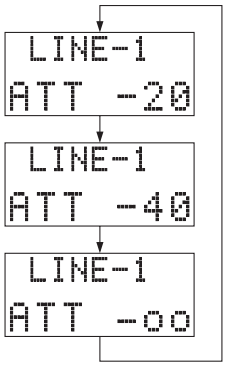
2. When the **ATT** button is pressed with the volume level at -∞(muted), the display will change as it is shown below appears for about 3 seconds, and attenuation is not applied.

■ How to Set Attenuation Level

Attenuation level can only be set using the **ATT** button on the unit. The attenuation level can be set at –20dB, -40dB, or -∞. The factory default setting is -20dB.

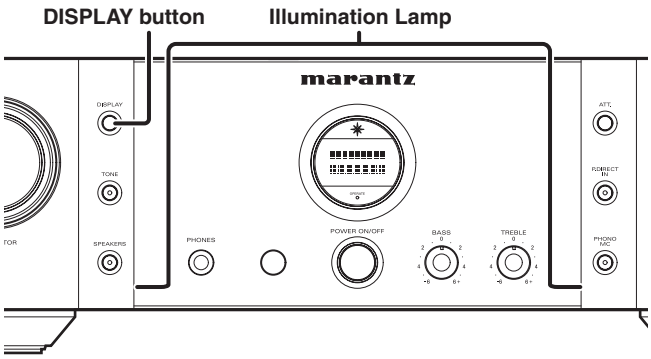
1. Press and hold the **ATT** button on the unit for 2 seconds or longer. The attenuation level will appear on the display.

2. The attenuation level setting value changes with each press of the **ATT** button on the unit.



3. When the desired attenuation level setting appears on the display, leave it unchanged for 2 seconds or longer to enter the setting. Once entered, the display returns to the volume level indication.

HOW TO OPERATE THE SIDE ILLUMINATION



The illumination lamp has an always-ON mode (factory setting) and an always-OFF mode.
In the always-ON mode, the illumination lamp turns ON/OFF in sync with the display.

1. With the illumination lamp lit, press and hold the **DISPLAY** button for 3 seconds or longer. The illumination lamp goes out, and the always-OFF mode is engaged.

2. To cancel the always-OFF mode and turn the illumination lamp ON, press and hold the **DISPLAY** button for 3 seconds or longer.

Note:

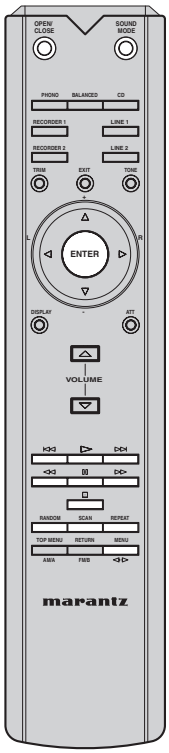
Setting of the illumination lamp cannot be performed with the remote controller.

ADVANCED OPERATIONS

CONTROLLING MARANTZ COMPONENTS

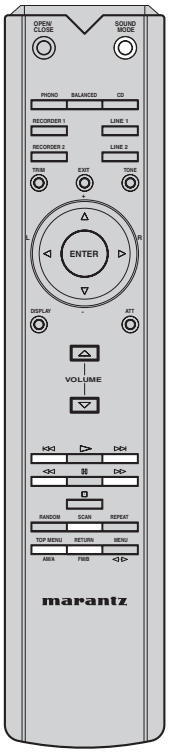
1. Press the desired **SOURCE** button.
2. Press the desired operation buttons to play the selected component.
   - For details, refer to the component's user guide.
   - It may not be possible to operate some models.

CD



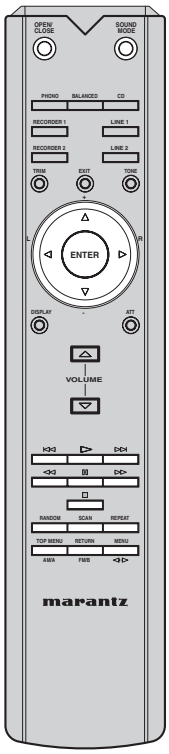
Button	Function
OPEN/CLOSE	Open/Closes disc tray.
SOUND MODE	Selects Super Audio CD sound mode. Selects Super Audio CD/CD.
►	Play
I◄◄	Track skip (Returns to track beginning/previous track.)
►►I	Track skip (Advances to next track.)
◄◄	Rewind search
►►	Forward search
II	Pause
■	Stop
RANDOM	Random play
SCAN	AMS (Automatic Music Scan) play
REPEAT	Repeat play
MENU ◄►	Sets quick replay.
ENTER	Starts quick replay.

TUNER



Button	Function
SOUND MODE	Switches Auto Stereo/ Monaural mode.
I◄◄	Selects a preset station.
►►I	Selects a preset station.
◄◄	Tuning in to a higher-frequency station.
►►	Tuning in to a lower-frequency station.
SCAN	Scanning of preset stations.
TOP MENU/ AM/A	Switches to AM.
RETURN/FM/B	Switches to FM.

DVD



Button	Function
OPEN/CLOSE	Open/Closes disc tray.
SOUND MODE	Changes sound mode.
►	Play
I◄◄	Track skip (Returns to track beginning/ previous track.)
►►I	Track skip (Advances to next track.)
◄◄	Rewind search
►►	Forward search
II	Pause
■	Stop
RANDOM	Random play
SCAN	Selects search mode.
REPEAT	Repeat play
TOP MENU/ AM/A	Displays top menu.
RETURN/FM/B	Returns to previous menu
MENU ◄►	Displays menu screen.
ENTER	Sets selected item.
▲ /+	Moves cursor upward.
▼ /–	Moves cursor downward.
◄ / L	Moves cursor to left.
► / R	Moves cursor to right.

TROUBLESHOOTING

If you have any problem using this product, please be sure to check the items in the following table.
If you trouble cannot be solved, please unplug the power cable immediately and contact your Marantz authorized dealer or service center.

GENERAL

Symptom	Cause	Solution	Page
Power is not supplied.	The AC power cord is not properly connected.	Plug the AC power cord firmly into the unit.	10
		Plug the AC power plug firmly into a wall outlet.	10
This unit cannot be controlled with the remote controller.	The batteries of the remote controller are exhausted.	Replace with new batteries.	3
	The remote controller is located outside its operable range.	Check the operable range of the remote controller and use it within that range.	3
	Some object is placed between the unit and remote controller.	Remove the object.	3
	The remote sensor of the unit is exposed to strong light.	Avoid exposing the remote sensor to the strong light.	3
No sound is heard from the speakers.	Speaker connection is incomplete.	Check the connection between the speakers and this unit.	9
	Input cable connection is incomplete.	Check the connection between the source equipment (CD player, etc.) and this unit.	8
	Setting of the INPUT SELECTOR knob is improper.	Set the INPUT SELECTOR knob to a position corresponding to the input jacks to which the source equipment (CD player, etc.) is connected.	10
	The speaker volume is set to the minimum level.	Adjust the volume.	11
	The SPEAKERS button is set to OFF.	Set the SPEAKERS button to ON.	4
	Setting of the P.DIRECT IN button is improper.	To use the P.DIRECT IN jacks, hold the P.DIRECT IN button pressed for at least 3 seconds to set the unit to power amplifier direct mode.	7
	Muting has been activated.	If “ATT” is displayed on the display, press the ATT button on the main unit or on the remote controller, or increase the volume level to cancel the attenuation function.	11
	The protection circuit has been activated.	Turn the unit off then back on again after about 1 minute. Then adjust the volume level again.	23
The volume from the right and left speakers differs.	The left- and right-channel volume levels (LEVEL TRIM) are different.	Set the trim levels for the left and right channels to zero, and check that sound is output from both channels. Then, adjust the left- and right-channel volume again.	18
The left and right channels are reversed.	Connection of the left and right speaker cables or input cables is reversed.	Check if the connection of cables between the speakers and this unit and that between the source equipment (CD player, etc.) and this unit are correct.	9
Sound is monaural.	The MODE switch on the rear panel is set to “BI-AMP”.	Turn the unit off, set the MODE switch to “STEREO”, then turn the unit back on.	17

TROUBLESHOOTING

PHONO

Symptom	Cause	Solution	Page
Noise occurs during record playing. Or, no sound is heard.	Grounding connection from the record player is improper.	Check that the grounding wire of the record player is connected with the PHONO GND terminal of this unit.	8
	Connection to the PHONO IN jacks is incomplete.	Check that the output jacks of the record player are properly connected with the PHONO IN jacks of this unit.	8
	A TV set, etc. placed too close to the record player may affect the sound.	Place the TV set or record player in another position.	–
	The PHONO MC button is not set properly for the cartridge used.	When the MC cartridge is used, set the PHONO MC button to MC.	4
Howling occurs when sound volume is increased during record playing.	The record player and speakers are placed too close.	Place the speakers as far away from the record player as possible.	–
	The record player is placed on a rack or floor prone to vibration.	If an insulating pad is not supplied with the record player, use an insulating pad available on the market.	–

ERROR MESSAGES

Symptom	Cause	Solution	Page
An error message is displayed.	The F.C.B.S setting is improper.	Set the ID numbers for F.C.B.S connection properly.	17
	The protection circuit has been activated.	See “ABOUT THE PROTECTION CIRCUIT”.	23

TROUBLESHOOTING

ABOUT THE PROTECTION CIRCUIT

This unit is equipped with a protection circuit to protect the amplifier circuits and speaker system from damage.

● At power on

For about 8 seconds after the power is turned on, the protection circuit is activated, muting the sound to give the amplifier circuits time to stabilize. Once the amplifier circuits stabilize, the protection circuit is released, and audio is enabled.

● In the event of overcurrent

The protection circuit is activated if current exceeding a certain level is detected, which can happen if excessive signal flow is input to the amplifier or if the unit is connected to a speaker system of less than 4 Ω impedance. The protection circuit is also activated if a speaker cable shorts.

● If excessive ultrabass signals are input

The protection circuit is also activated if ultrabass signals are input.

● If the main-amplifier overheats

The protection circuit is activated if the temperature of the main-amplifier section rises above a certain level, which can happen if the amplifier is continuously used with excessive signal flow being input to it. The protection circuit is also activated when the specified operating temperature is exceeded, which can happen if the vents on top of the amplifier are covered or if the amplifier is installed on a cramped audio rack.
In such cases, “PROTECT” flashes on the display, and the volume is automatically decreased. After about 8 seconds, the protection circuit is deactivated. Adjust the volume again.
If the abnormality persists, the unit will automatically shut itself off, and the OPERATE indicator will flash (twice per second).
In such a case, turn the unit off then back on again after about 1 minute.

■ In the event of amplifier trouble

The protection circuit is activated, and the power is automatically shut OFF, if an abnormality is detected in the power circuit. The same happens if the main fuse inside the amplifier blows. In such cases, the OPERATE indicator flashes. (8 times per second)
Turn the unit off then after several minutes turn it on again. If the display does not light up, and the OPERATE indicator remains flashing after the unit is turned on again, the unit may be in failure.
In such a case, disconnect the power cord immediately, and contact the place of purchase, your nearest Marantz dealer, our customer service center, or our repair service center.

■ Error messages

When multiple amplifiers are connected by F.C.B.S., the error messages described in the table below may be displayed on the display. In such a case, ID number setting or remote cable connection may be in failure. Check the ID number or remote cable connection, referring to the table below. For details on ID number setting, see “**HOW TO SET ID NUMBERS**”, on page 17.

	Indication	Meaning	Measures to be taken
1	ERROR 02	Multiple amplifiers take ID No. 2.	Assign different ID numbers to the amplifiers.
2	ERROR 03	Multiple amplifiers take ID No. 3.	
3	ERROR 04	Multiple amplifiers take ID No. 4.	
4	ERROR 11	The amplifiers with ID Nos. 2-4 cannot communicate with the amplifier with ID No. 1.	If the amplifier with ID No. 1 is not on, turn it ON. Check that the remote cable is properly connected.
5	ERROR 12	The amplifier with ID No. 1 cannot communicate with the amplifiers with ID Nos. 2-4.	If multiple amplifiers take ID No. 1, set ID numbers properly. Check that the remote cable is properly connected.

OTHERS

SPECIFICATIONS

Power output (20 Hz – 20 kHz simultaneous drive of both channels)
- (8Ω load) ..... 90 W x 2
- (4Ω load) ..... 140 W x 2

Headphone rated output (When speaker rated output set to 8 Ω load) ..... 120mW x 2 (32 Ω load)

Total harmonic distortion (20Hz – 20kHz simultaneous drive of both channels, 8 Ω load) ..... 0.05 %

Output band width (8Ω load, 0.05%) ..... 5 Hz ~ 40 kHz

Frequency response (CD, 1W, 8Ω load) ..... 5 Hz ~ 100 kHz ±3 dB

Dumping factor (8Ω load, 20Hz – 20kHz) 100

Input sensitivity/Input impedance
- PHONO (MC) ..... 270 µV/100 Ω
- PHONO (MM) ..... 2.7 mV/47 kΩ
- CD/LINE ..... 240 mV/20 kΩ
- P.DIRECT IN ..... 1.7 V/20 kΩ

Output voltage/Output impedance
- PRE OUT ..... 1.7 V/220 Ω

Maximum allowed PHONO input (1kHz)
- MC ..... 15 mV
- MM ..... 150 mV

RIAA deviation (20Hz ~ 20kHz) ..... ±0.5 dB

S/N (IHF-A, 1W, 8Ω load)
- PHONO MC (0.5mV input) ..... 75 dB
- PHONO MM (5mV input) ..... 86 dB
- CD/LINE (500mV input) ..... 89 dB

Tone control
- Bass (50Hz) ..... ±10 dB
- Treble (20kHz) ..... ±10 dB

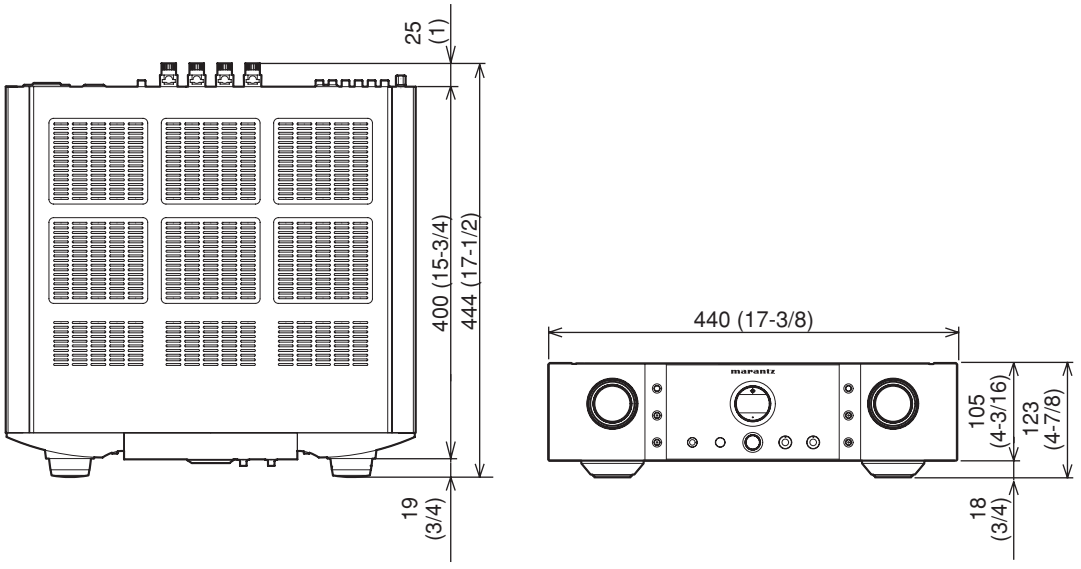
Power requirement
- ..... AC 120 V 60 Hz (U.S.A.)
- ..... AC 230 V 50/60 Hz (Europe)

Power consumption
- (EN60065 7th Ed.) ..... 220 W
- (UL60065) ..... 220 W

Specifications subject to change without prior notice.

DIMENSIONAL DRAWINGS

(Unit: mm (in))



Weight : 18.5 kg (40.8 lbs)

OTHERS

CLEANING OF EQUIPMENT EXTERNAL SURFACES

The exterior finish of your unit will last indefinitely with proper care and cleaning, Never use scouring pads, steel wool, scourging powders or harsh chemical agents (e.g., lye solution), alcohol, thinner, benzine, insecticide or other volatile substances as these will mar the finish of the equipment. Likewise, never use cloths containing chemical substances. If the equipment get dirty, wipe the external surfaces with a soft, lint-free cloth.

If the equipment becomes heavily soiled:

- dilute some washing up liquid in water, in a ratio of one part detergent to six parts water.
- dip a soft, lint free in the solution and wring the it is damp.
- wipe the equipment with the damp cloth.
- dry the equipment by wiping it with a dry cloth.

USING HEADPHONES

If the volume in the headphones is too high, it may injure your ears. Do not set the sound volume too high.

REPAIRS

Only the most competent and qualified service technicians should be allowed to service the factory-trained warranty station personnel have the knowledge and special facilities needed for repair and calibration of this precision equipment. After the warranty period has expired, repairs will be performed for a charge if the equipment can be returned to normal operation.

In the event of difficulty, refer to your dealer or write directly to the nearest location to you that is listed on the Marantz Authorized Service Station list. If writing, please include the model and serial number of the equipment together with a full description of what you think is abnormal about the equipment's behaviour.

Memo

www.marantz.com

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